

Appl. No.: 09/827,127
Amendment Dated 10/07/2005
Reply to Office Action of 07/11/2005

Pending Claims:

Claims 1 – 19 (canceled)

20. (Currently Amended) A method for expanding the capacity of a data communication switching system, in which the system architecture of the data communication system includes at least one circuit card in communication with at least one switched network card, wherein said method comprises the steps of:

providing a first framework that includes at least one circuit card and at least one interface transfer card in communication with one another;

providing a second framework that is different froth the first framework and includes at least one switched network card and at least one interface card in communication with one another; and

providing a data communication link connecting the interface transfer card of the first framework with the interface card of the second framework to thereby establish communication between the circuit card and the switched network card.

21. (Previously presented) A method according to Claim 20, wherein said providing a first framework step comprises providing a first framework further including a back plane for interconnceting at least one circuit card and at least one interface transfer card, and wherein said providing a second framework step comprises providing a second framework further including a back plane for interconnecting the at least one switched network card and the at least one interface card.

22. (Previously presented) A method according to Claim 20, wherein said providing a first framework step provides a plurality of first frameworks each having at least one circuit card and at least one interface transfer card, and wherein said providing a data communication link step provides data communication links connecting the interface transfer cards of the plurality of first frameworks to the at least one interface card of the second framework to thereby

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establish communication between the circuit cards of the plurality of first frameworks and the at least one switched network card of the second framework.

23. (Previously presented) A method according to Claim 22, wherein said providing a second framework step provides a second framework that includes a plurality of slots for positioning switched network cards and associated interface cards such that additional switched network cards and interface cards can be added to the second framework to connect with the circuit cards and interface transfer cards of the plurality of first frameworks.

24. (Previously presented) A method according to Claim 20, wherein said providing a data communication link step provides an optical fiber connecting the interface transfer card of the first framework with the interface card of the second framework.

25. (Previously presented) A method according to Claim 21, further comprising the step of providing at least one passive base card having a first connector for connection to the at least one switched network card via the back plane and a plurality of second connectors for connection to a plurality of miniaturized interface cards, such that each of the miniaturized interface cards are connected to the at least one switched network card via the passive base card and each of the interface cards can be inserted and removed independently of one another.

26. (Previously presented) A method according to Claim 21, further comprising the step of providing at least one passive base card having a first connector for connection to the at least one circuit card via the back plane and a plurality of second connectors for connection to a plurality of miniaturized interface transfer cards, such that the miniaturized interface transfer cards are connected to the at least one circuit cards via the passive base card and each of the interface transfer cards can be inserted and removed independently of one another.

27. (Previously presented) A method according to Claim 21, further comprising the steps of:

providing at least one passive base card having a first connector for connection to at least one switched network card via the back plane and a plurality of second connectors for

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connection to a plurality of miniaturized interface cards, such that each of the miniaturized interface cards are connected to the at least one switched network card via the passive base card and each of the interface cards can be inserted and removed independently of one another; and

providing at least one passive base card having a first connector for connection to the at least one circuit card via the back plane and a plurality of second connectors for connection to a plurality of miniaturized interface transfer cards, such that the miniaturized interface transfer cards are connected to the at least one circuit card via the passive base card and each of the interface transfer cards can be inserted and removed independently of one another.

28. (Previously presented) A method according to Claim 20, further comprising the step of providing for each of the at least one switched network cards a back up card connected to the switched network card as a replacement therefor in the event the switched network card malfunctions.

29. (Previously presented) A method according to Claim 20, further comprising the step of providing for each of the at least one circuit cards a back up card connected to the circuit card as a replacement therefor in the event the circuit card malfunctions.

30. (Previously presented) A method according to Claim 20, wherein said providing first and second framework steps respectively provide first and second frameworks having interface transfer cards and interface cards that use the same interface standard, and wherein multiple pairs of said interface transfer cards and said interface cards use the same speed.

31. (Currently Amended) A smooth capacity expandable system of data communication switching comprising:

at least one circuit card and at least one interface transfer card in communication with one another;

at least one switched network card and at least one interface card in communication with one another, wherein said switched network card is different than said circuit card; and

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a data communication link connecting said interface transfer card and said interface card to thereby establish communication between said circuit card and said switched network card.

32. (Previously presented) A system according to Claim 31, further comprising:

a first framework that includes a plurality of slots for positioning said at least one circuit card and associated at least one interface transfer card, wherein the slots are interconnected to form connections therebetween; and

a second framework that includes a plurality of slots for positioning said at least one switched network card and associated at least one interface card, wherein the slots are interconnected to form connections therebetween.

33. (Previously presented) A system according to Claim 31, wherein said first framework further includes a back plane for interconnecting said at least one circuit card and said at least one interface transfer card, and wherein said second framework includes a back plane for interconnecting said at least one switched network card and said at least one interface card.

34. (Previously presented) A system according to Claim 32, further comprising:
a plurality of first frameworks each having at least one circuit card and a least one interface transfer card; and

data communication links connecting said interface transfer cards of said plurality of first frameworks to said at least one interface card of said second framework to thereby establish communication between said circuit cards of said plurality of first frameworks and said at least one switched network card of said second framework.

35. (Previously presented) A system according to Claim 34, further comprising:
additional switched network cards and associated interface cards positioned within said second framework to connect with said circuit cards and interface transfer cards of said plurality of first frameworks.

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36. (Previously presented) A system according to Claim 31, wherein said data communication link is an optical fiber.

37. (Previously presented) A system according to Claim 33, further comprising at least one passive base card having a first connector for connection to said at least one switched network card via said back plane and a plurality of second connectors for connection to a plurality of miniaturized interface cards, such that each of said miniaturized interface cards are connected to said switched network card via said passive base card and each of said interface cards can be inserted and removed independently of one another.

38. (Previously presented) A system according to Claim 33, further comprising at least one passive base card having a first connector for connection to said at least one circuit card via said back plane and a plurality of second connectors for connection to a plurality of miniaturized interface transfer cards, such that said miniaturized interface transfer cards are connected to said circuit cards via said passive base card and each of said interface transfer cards can be inserted and removed independently of one another.

39. (Previously presented) A system according to Claim 33, further comprising:
at least one passive base card having a first connector for connection to said at least one switched network card via said back plane and a plurality of second connectors for connection to a plurality of miniaturized interface cards, such that each of said miniaturized interface cards are connected to said switched network card via said passive base card and each of said interface cards can be inserted and removed independently of one another; and

at least one other passive base card having a first connector for connection to said at least one circuit card via said back plane and a plurality of second connectors for connection to a plurality of miniaturized interface transfer cards, such that said miniaturized interface transfer cards are connected to said circuit cards via said passive base card and each of said interface transfer cards can be inserted and removed independently of one another.

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40. (Previously presented) A system according to Claim 31, further comprising for each of said at least one switched network card a back up card connected to said switched network card as a replacement therefor in the event said switched network card malfunctions.

41. (Previously presented) A system according to Claim 31, further comprising for each of said at least one circuit card a back up card connected to said circuit card as a replacement therefor in the event said circuit card malfunctions.

42. (Previously presented) A system according to Claim 31, wherein said interface transfer cards and said interface cards use the same interface standard, and wherein multiple pairs of said interface transfer cards and said interface cards use the same speed.